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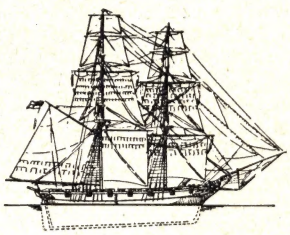

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Model Ships and Power Boats

INCORPORATING *Ships and Ship Models*

EDITED BY EDWARD BOWNESS

VOL III NO 35 NOVEMBER 1950

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The Ship's Log

WHERE BOATS ARE BANNED

Many of our model power boat readers complain of the lack of facilities for running boats in this country, and the most bitter complaints of all are received from those who now find that the authorities have placed a ban on their sport for apparently inadequate reasons. We are anxious to help such readers in putting a case to the authorities for the continuance of use of local ponds, and urge that full particulars of any ban imposed should be sent to us, together with an account of any negotiations with authorities which have taken place. But some of the letters which have been submitted for publication, accusing the authorities of biased views on model boats, would be very unlikely to have any good effect, and would be more likely to prejudice than to help the cause. We can only take active steps to help them if we are in possession of all facts, and from every point of view. We know that in many cases power boats have been banned from public parks because of noise, and lack of safety precautions, both of which have an important bearing on the attitude of the public (who, incidentally, outnumber model engineers by a thousand to one), towards these models. If enthusiasts can convince the authorities that they are taking every precaution to avoid annoyance or danger to the public, they can usually be assured of a sympathetic hearing. A great deal can be achieved by unified action through controlling organisations such as the M.P.B.A., and though the enforcement of rules concerning silencing, insurance, etc. may be very unpopular they help to convince the public that model engineers are responsible citizens and not a public menace.

OUR COVER PICTURE

The model in the picture on our cover this month could be described as a model galleon "with a difference." Contrary to the average model galleon this one not only looks, in the proportions of its underwater body as compared with its sail plan, as if it could sail, but it does actually sail. It was built by Mr. Peter M. Wood the marine artist and modelmaker for the films, and is one of a number of models of old ships which he has built to sail.

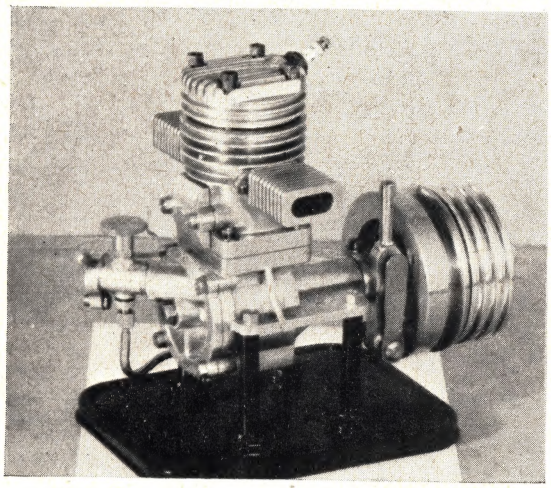
The ship is one of the most beautiful and satisfying of working models (although some of our locomotive enthusiasts might question this) and of all ships the galleon is the most colourful. There is an increasing interest in square rigged sailing ships as working models, and we would commend the galleon to those interested in this side of ship modelling. The model illustrated has a well-proportioned hull with sweet flowing lines : the spars and sails are in keeping with the robust character of the hull and the rigging follows very closely that of the ships of this period.

Speed is not much sought after and thus the time required to trim the sails for a different course is a matter of little moment. The model of a clipper or a fast sailing ship, especially if racing is envisaged, is a different matter and in this case some simplification of the rigging would be an advantage. The deep lead keel of this model can be seen in the photograph. To see such a model as this sailing on a pond in a light breeze on a bright sunny morning would provide as complete a release from the affairs of this mundane world as could well be imagined.

*MODEL MARINE POWER PLANTS

by Edgar T. Westbury

THE modern tendency in the development of small i.c. engines for racing boats is towards an elimination of all details which do not appear to contribute directly to the attainment of high performance ; and the result is often to produce a stark austerity or even crudity of design, which though it may attain the desired end, detracts from

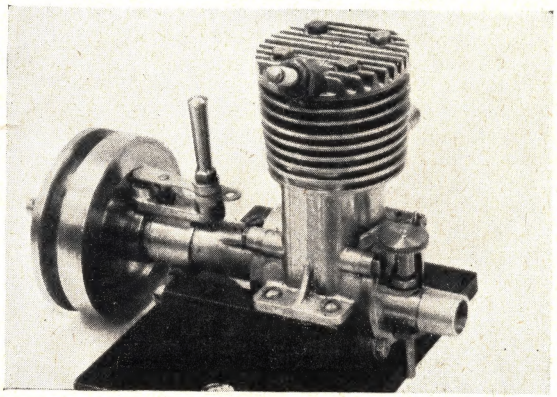


The " Ensign " 10 c.c. racing two-stroke engine

the interest from the aspect of mechanical design. While there are many exponents of very highly efficient racing engines, both of commercial and amateur construction, who will question my right to criticise these engines on such grounds, I still beg leave to express doubts as to whether this line of development is the healthiest in the long run, tending as it does to stereotyping and ultimate stagnation in design. There is no doubt, however, of its success as a short-term policy, and comparatively few engine constructors are prepared to face the long, painstaking task of developing entirely new designs, not to mention the probable setbacks and disappointments which are all too often the lot of the pioneer. That the latter will triumph in the end, there is no possible shadow of doubt, and it may be observed that while it is sheer speed which gains the material awards, and also popular acclaim, in racing events, it is incapable of holding for long the interest of the real enthusiast, unless it is accompanied by developments which give scope for the individualistic designer and craftsman. This has been proved in certain other forms of competitive sport, in which technical interest has been almost completely eliminated, and the devotees which remain consider only the results, with no regard for the means by which they are attained. In any form of model engineering, this would surely result in degeneration and ultimate extinction.

Practically all miniature racing i.c. engines are of the single-cylinder type, though there is at least one notable exception to this rule. Of recent years, the two-stroke engine has become predominant, though there is evidence, in such boats as *Faro* and *Betty*, both veterans of pre-war vintage, that the four-stroke engine is quite capable of holding its own, at least in the larger sizes of racing boats, and deserves a great deal more attention than it appears to be receiving from present-day constructors. The relative characteristics of the two types of engines have already been discussed, and apply equally to racing engines and to those used in prototype craft, though features such as flexibility are not considered of much importance in racing. Many users would also discount the ability of the four-stroke to run with less noise than the two-stroke—but this may have a much greater influence on model power boat history in the future than many engine users imagine.

Two-stroke racing engines are commercially manufactured in this country and America, in sizes up to 10 c.c., the smaller engines, up to 5 c.c., being predominantly of the compression-ignition type. In view of my foregoing comments, it will be significant to students of design that in practically all cases, and particularly those of the most successful racing types, these engines are reduced to their simplest essentials, and are much alike in everything but minor details. All of them are big-ported high-compression engines, and nearly all are fitted with rotary admission valves, of a type which I have advocated for over 20 years, and on which I carried out pioneer experimental work for some years before that. However, it is only within the last ten



The " Cadet " 5 c.c. two-stroke engine

* *Continued from October issue, page* 155.

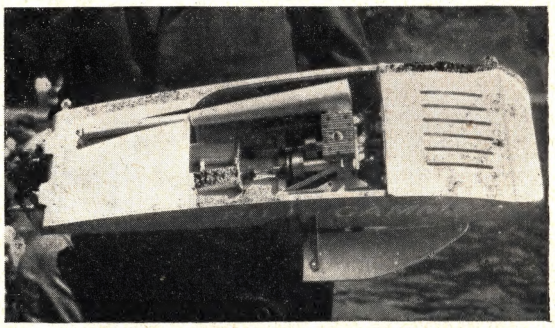
or twelve years that the merits of this system of admission have been generally recognised.

In the further quest for simplification of engines, carburettors have been reduced to their most primitive form—float feed is practically extinct on racing two-strokes—and spark ignition is generally abandoned in favour of the glow-plug, which in principle, at least, is a reversion to very early ignition methods. There is no doubt that these modern [?] innovations side-track many problems in design, and enable results—often very good results—to be obtained, but that they are genuine advances in design, there is serious reason to doubt. Another modern development, almost universal in racing engines, and quite essential in glow plug and compression-ignition engines, is the use of special fuels ; many such engines will not run on petrol under any circumstances.

The principal advantage of glow plug ignition is that it enables the weight of ignition equipment to be eliminated, and in the smaller sizes of engines this is undoubtedly an important asset, shared, of course, with the compression-ignition engine. There may, under certain circumstances, be further incidental advantages in this system of ignition ; sometimes it enables engines to be started under conditions of incorrect mixture adjustment which would, in the case of spark ignition, result in oiling up or wetting the plug. Against this, however, must be set the low inherent flexibility of glow-plug ignited engines, and their dependence on special fuels, the exact composition of which has a much greater effect on performance than in spark-ignited engines. I have always maintained that the most potent factor in the popularity of the glow-plug is the general poor quality of spark ignition equipment which has been available in the past ; with a really efficient ignition system, and a good magneto especially, spark ignition will more than hold its own, with or without using special fuels.

Up to the present, no engines greater in capacity than 10 c.c. have been available ready made, so that in the larger classes (" A " and " B ") of racing boats, with entirely home-built engines, the mark of the individualist is much more apparent, and there is considerably more variety in design. This does not, however, imply that there are no good examples of amateur designed and constructed engines in the smaller (" C " and " D ") classes ; some of the latter have put up performances which are but little, if at all inferior to those attained by the best commercial engines, which have all the resources of modern research and factory equipment behind them.

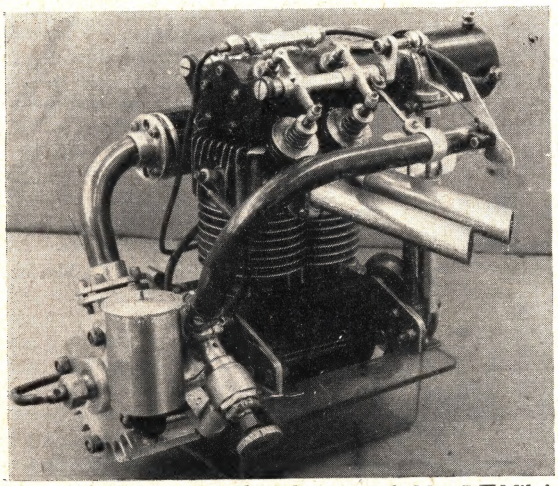
I have designed engines for racing boats of all classes, some of which have already been mentioned.



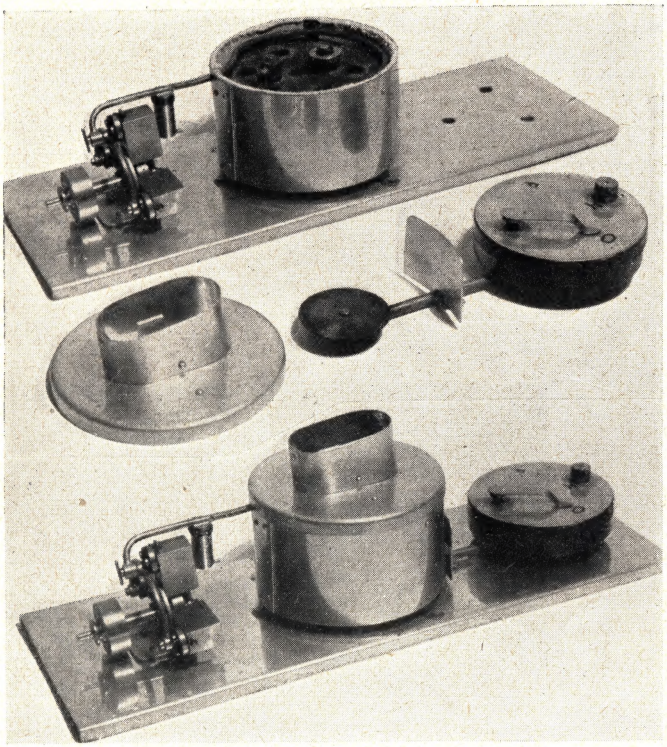
Mr. Mitchell's speed-boat " Gamma " fitted with a 10 c.c. " split single " two-stroke engine

Many constructors have attained success with these designs, sometimes built exactly to blueprint and in other cases more or less freely adapted ; but all competitive work depends largely on individual resource and initiative, and the interpretation of the design is rarely quite the same in detail or performance, in the hands of different constructors. Two of my latest two-stroke engines, the " Ensign " 10 c.c. and the " Cadet " 5 c.c. were originally designed specially for use in model racing cars, but they have proved equally successful, and if anything more popular, for use in racing hydroplanes, in " C " and " D " class respectively.

As an example of how the amateur is leading the way in advanced engine design, I am showing two engines which are quite definitely out of the common rut, and have attained at least a little of the success which they deserve. The first is the 30 c.c. vertical twin overhead-camshaft supercharged engine of Mr. B. Miles's *Barracuda II*, which was built during the war, and has been developed to a high state of efficiency by patient experimental work. The second is the 10 c.c. " split-single " two-stroke of Mr. R. Mitchell's *Gamma*, a more recent innovation, and in some respects even more daring, as it is specially designed for driving contra-rotating twin propellers. The particular type of engine has not been exploited to any great extent as yet in model craft though it has had notable success in larger sizes ; in case readers are not familiar with the type, it may be mentioned that it has two cylinder barrels and pistons with a common combustion chamber ;



The 30 c.c. o.h.c. supercharged engine of Mr. B. Miles's " Barracuda II "



The Hardy marine steam plant: (above) with lamp and smoke-box cover removed (below) ready for running

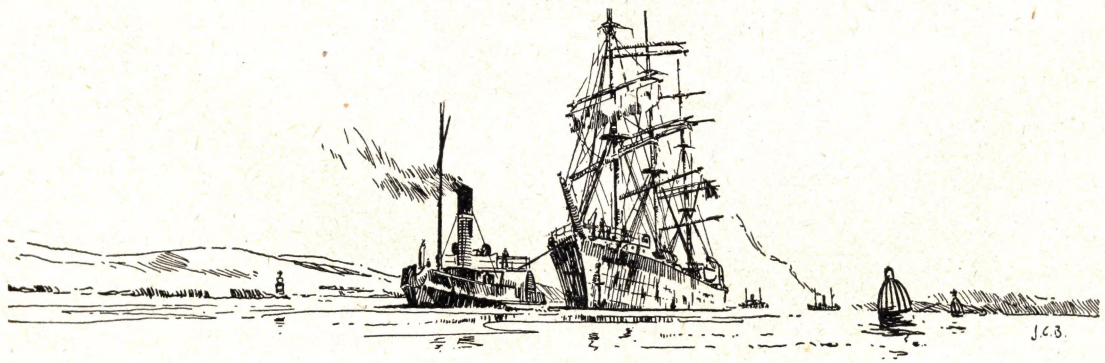
in some cases a forked connecting rod is used to transmit piston thrust to a single crankshaft, but in Mr. Mitchell's engine, two rods, and two crankshafts geared together, are employed.

An Interesting Marine Steam Plant

To come back to the subject of steam engines, I have recently examined and tested a small steam plant produced by Messrs. Hardy Bros., of 22, Westbourne Place, Hove, Sussex, which has many novel and original features, and is intended principally for use in small, shallow-draught cruising boats. One of the most obvious departures from convention is the design of the boiler, which instead of being horizontal, is of shallow vertical shape with " fire tubes " or flues passing through it, enclosed in a circular asbestos-lined casing, with a removable cover or " smoke-box " to which a short uptake is attached. Firing is by means of a very ingenious vaporising spirit lamp, having a disc-shaped burner which gives a flame similar to that of a gas ring or primus burner, and is equipped with a regulating valve. The engine is of the single-acting type, with a piston valve behind the cylinder, operated by a pin which engages in an eccentric groove in the back face of the disc crank. A very ingenious feature of this engine, apart from the simple, but positive valve gear, is the way in which one, two or three complete cylinder and valve units can be mounted on the main engine bracket, so that the connecting-rods drive on to a single crankpin, and the valves are operated from a single eccentric groove, the valve timing being automatically correct, whatever the disposition of individual cylinders. Thus, a twin engine may be either of the horizontally-opposed or vee type, and a three-cylinder either of the radial or fanwise type, as desired.

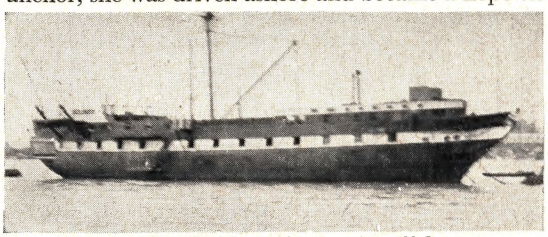
A possible criticism of this arrangement is the use of the same boiler capacity to supply either one, two or three cylinders, and it would undoubtedly be desirable to provide for some means of expanding the steam generator to suit cylinder capacity. There are, however, obvious difficulties in carrying out this idea in a plant designed for simple and economical production, and it would probably entail supplying three sizes of boilers and spirit burners. Fittings for adapting the engine for a different number of cylinders, however, consist simply of branched steam pipe connections. There are circumstances where it is desirable to have a choice between a single cylinder engine running at high speed, and two or three cylinders with correspondingly lower shaft speed, but more even torque.

(To be continued)



The "FOUDROYANT"

IN view of the appeal which is being made at the present time for funds to preserve and restore what is practically the last of the old wooden walls now afloat around our shores, the training ship *Foudroyant*, the photograph which we reproduce above of an earlier *Foudroyant* will be of interest. The earlier *Foudroyant*, a 74-gun ship which was built in 1798, was named after a French prize of that name which had been taken in 1758. When first commissioned she was the flagship of Lord Keith. Lord Nelson used her as his flagship during the years 1799 and 1800 after which he transferrred his flag to H.M.S. *Victory*. After a long and useful career in the Navy she was sold in 1892 to a German shipbreaker. The late Mr. J. R. Cobb, F.S.A., however, to save her from the breakers yard, repurchased her and brought her to the Thames. There he restored the upperworks to the condition shown in her original sheer draft and had her re-masted. He obtained the greater part of her original fittings from Woolwich and re-rigged and re-armed her. Then he handed her over to his son, Mr. G. Wheatly Cobb to maintain. From the photograph it is obvious that some modifications had been made at one time to her stem and head work. The cheeks are cut away at an awkward angle where they join the stem, and the tapering piece under the figurehead jars with the outline of the stem. However, the tall masts and the long jib-boom with its flying jib-boom give one some idea of the tremendous sail plan of the ships of this period. Under Mr. Wheatly Cobb's ownership she cruised around our shores and our photograph shows her lying in the Mersey during one of these cruises. Leaving the Mersey she sailed north to visit Blackpool. Whilst there she was caught in a violent gale, one of her cables parted, and dragging the other anchor, she was driven ashore and became a hopeless

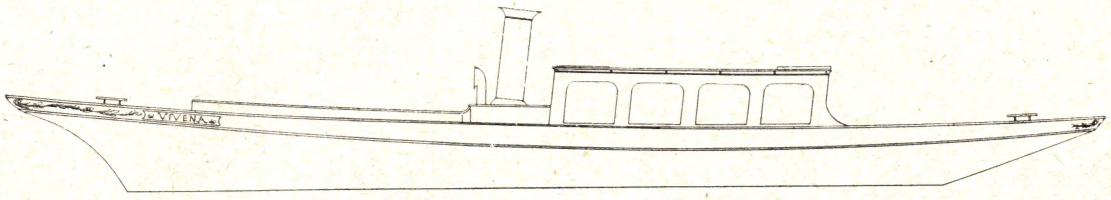


The present "Foudroyant" at anchor off Gosport

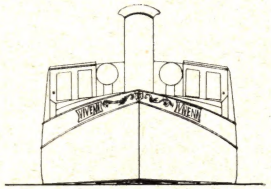
wreck. Her purchase and restoration had cost the owner £30,000, but the sale of her wreck realised only £200.

To take the place of the lost *Foudroyant*, Mr. Cobb acquired a frigate, H.M.S. *Trincomalee*, a 26-gun

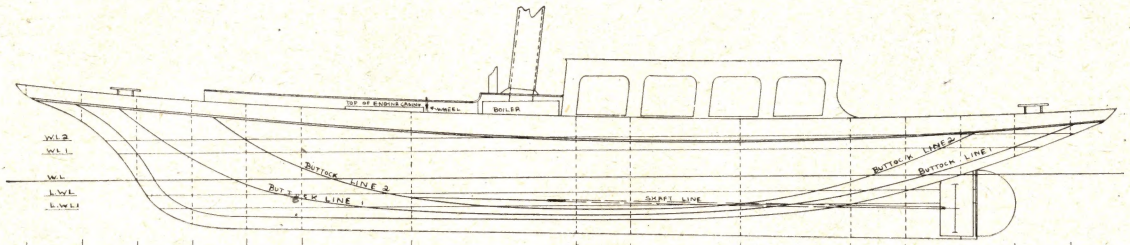
(*Continued on page* 167)

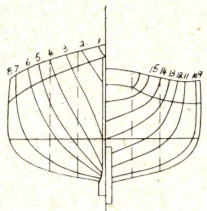


ELEVATION



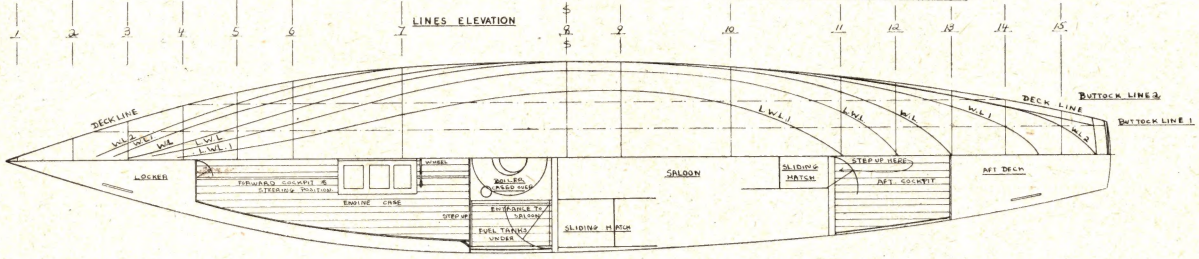
BOW ELEVATION





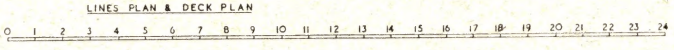
SECTIONS

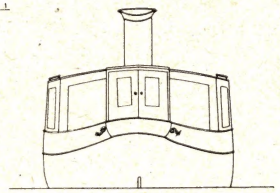
LINES ELEVATION



LINES PLAN & DECK PLAN

SCALE OF FEET FOR ACTUAL VESSEL & SCALE OF INCHES FOR MODEL





STERN ELEVATION

MODEL RIVER STEAM LAUNCH "VIVENA"

LINES & GENERAL ARRANGEMENT

DESIGNED BY
CHARLES S.J. ROY

A SUGGESTED STEAM LAUNCH PROTOTYPE

by CHARLES S. J. ROY

BEFORE the turn of the century, steam as a motive power for small launches reigned supreme. In old pictures and books of that period, there are pictured a good number of the many different designs. Some had straight stems, some were clipper bowed, some had the funnel well forward of the amidships similar to the naval picket-boats, and so on. The writer does not know which particular design was the most popular, but personally considers the clipper bowed launches with a counter stern, were by far the most graceful.

This interest in one particular design was further fostered when my father purchased the steam launch *Seagull* on which the design of the *Vivena* was based.

A description of the *Seagull* therefore would not be out of place. The launch was 43 ft. over the bowsprit, about 32 ft. on the waterline, and was built in 1885 for the Royal Thames Yacht Club to serve as a race starting launch. The craft was built of teak and mahogany, all joinery being of a craftsmanship associated with the more leisured days of the past. The cabin was about 8 ft. long and forward was the steering wheel, the cables being led down each side of the vessel, inside the rubber, and thence into the tiller flat under the aft deck.

The machinery consisted of a side-firing solid fuel locomotive boiler, copper throughout, steaming a V-twin high pressure bulkhead engine, approximately 3 in. bore × 4 in. stroke. Reversing was by twin eccentrics. The engine was of very pretty design, but unfortunately either the ports were not adjusted to " L.B.S.C. " standard or else the boiler was inefficient, as the launch was a notoriously bad performer and generally had to get up steam at each lock for the run between.

After being owned for some years by the River Lee Conservancy Board, the craft was purchased in 1933 by my father, who installed a Ford petrol engine.

The *Seagull* was subsequently sold back to the Lee Conservancy Board, but it is believed that during the war years, whilst laid up afloat, the craft suffered badly from rot and may not now be in existence.

Thus, using this craft as a basis ; the model steam launch *Vivena* was designed, as it was felt that any attempt to draw lines and details of the *Seagull* would only lead modellers astray ; as not even the correct deck dimensions are known.

However the *Vivena* follows the trend of the period more or less exactly, except that the ornamental bowsprit has been omitted. The hull lines copy the hollow forward sections, but for working models, builders may have to alter the lines to suit the machinery to be installed, either deepening the hull or filling out the bow sections.

A small vertical boiler is shown, but a centre flue horizontal boiler, having the funnel at the forward end could be installed, the boiler extending into the cabin and being fired by a blowlamp.

The engine suggested for the *Vivena* would be a single or twin vertical launch engine of about ½ in. bore. A glass ship-type skylight is fitted over the engine, but the sides of the casing are open.

The hull would be best built on the bread and butter system, and the cabin and coamings built up of thin mahogany. All woodwork above the rubber on the original launches was generally varnished ; fittings such as cleats and handrails were polished brass or gunmetal.

The fore and aft decks were laid and caulked in the usual manner. The floorboards were either stained wood planks or else corticine covered.

The displacement for a 1 in. to the 1 ft. model, i.e. 40 in. overall would be about 7½ lb., and as that is rather light, it would be advisable to save weight wherever possible by using balsa wood for bulkheads, decks, etc. About ½ lb. should be allowed for a brass or lead keel strip for trimming purposes.

This design could also be built as an open launch, having the same hull as the *Vivena*, but the boiler should then be a small vertical. This would be in keeping with the prototype of this period, as many launches were fitted with the very successful June Valley vertical boilers.

Through this brief article, it is hoped that some modellers will be inspired to recapture the glories of the steam launches in their heyday.

The " Foudroyant " (*Continued from page* 165)

vessel launched at Bombay in 1817, a sister ship to Broke's famous *Shannon*. He renamed her *Foudroyant*, and equipped her with the guns and what gear could be salved from the wreck, and moored her in Falmouth harbour where she carried on as a holiday training ship for boys from various schools and organisations. This is the ship for which the appeal is now being made. Our photograph shows her as she lies off Gosport at the present time, and as her timbers are still sound, and as moreover she is a particularly handsome specimen of her type, the idea of restoring her should meet with a ready response from all lovers of ships.

We are indebted to much of the information given above to Mr. Basil Lavis in a letter published in *Ships and Ships Models* of July, 1932. The photograph of the earlier *Foudroyant* was lent us by Mr. John Smart of Wallasey, Cheshire.

Ships in the News

by Laurence Dunn

PRINCE LINE CHANGES

IT is a commentary on the changed trading conditions which shipowners have to face that several Prince and Rio Cape Liners are forsaking their traditional Prince names and are trading instead on Empire routes under new names to bring them into line with their charterers' own ships.

Last year " in consequence of the trade in which she is to be engaged," as they put it, the Rio Cape Line applied for permission to change the name of their 9,904 ton *Black Prince* to *Zealandic*. Since then she has been running on Shaw Savill & Albion charter and bears their funnel colours. Now for the same reason their 9,485 ton motorship *Chinese Prince* is to be known as the *Nordic*.

The two ships, amongst the largest in the two fleets, differ considerably in detail and appearance. The *Black Prince* is one of the 475 ft. long *Empire Chieftain* class of fast cargo liner, of which 33 were built or laid down towards the latter part of the war. As the *Empire Regent* she was built by Fairfields in 1933. Like most of her sisterships she was given geared turbines and has a speed of 14-15 knots.

The *Chinese Prince* on the other hand was built for the company by J. L. Thompson & Sons, and was fitted with Doxford type diesels. She is very similar to the steam-driven *Silveroak* which Thompsons built for the Silver Line and to the Blythswood built *Javanese Prince*.

At the end of June another ship, the much smaller *Afric* (4,600 tons d.w.) was launched at Burntisland to Prince Line account. She is designed as a citrus fruit and general cargo carrier, besides having accommodation for the now usual 12 passengers.

Designed for a speed of 14 knots, she will be fitted with a Doxford type engine of 3,300 b.h.p., and is 363 ft. in length overall × 51 ft. 3 in. breadth and 30 ft. 9 in. moulded depth. So although she cannot be compared with the large long distance ships she represents a considerable increase in size on the other Mediterranean traders built in recent years for the Prince Line.

As a footnote to the above it has just been reported that the oldest of the Rio Cape Lines fleet, the *Malayan Prince*—seen recently at Antwerp wearing British India colours—has been sold for scrap and is to be broken up by Wards at Inverkeithing. A rather ugly 3-masted motorship of 8,593 tons, she was one of a group of five straight framed ships designed for round-the-world service. All were built by the Deutsche Werft at Hamburg in 1926, and the fact that such a large contract was placed abroad aroused considerable surprise and criticism among British shipbuilders, as such a thing was almost without precedent.

One of her sisterships the *Asiatic Prince* hit the headlines a few years later by disappearing at sea without trace.

THURLAND CASTLE

The Lancashire Shipping Co. Ltd. of London has just sold the as yet uncompleted cargo and passenger liner *Thurland Castle* to the Pacific Steam Navigation Co. of Liverpool.

Due for delivery by the end of the year she is a ship 484 ft. in length × 64 ft. beam and 21 ft. depth, and will be propelled by 3 single reduction geared turbines driving a single screw.

The Lancashire Shipping Co. Ltd., which is now managed by Mollers Ltd., was previously controlled by Jas. Chambers & Co. Ltd. of Liverpool. Besides owning a number of tramps this firm operated several fine cargo liners on the Dodwell Castle Line's round the world service. War losses were exceptionally heavy and the few surviving ships were sold. Later the new management built a fresh fleet with the purchase of two American " Baby Flat Tops," which, reconstructed, became the *Greystoke Castle* and *Muncaster Castle*, and by the construction last year of the Blyth-built *Penrith Castle*, a steamer of 7,731 tons gross.

The *Thurland Castle* just sold is a repeat of this ship. In passing it is interesting to remember that the *Fulani* recently on fire at Liverpool bore the same name until her sale to Elder Dempsters.

* * *

KENUTA

Besides the *Thurland Castle* the fleet of the Pacific Steam Navigation Co. has been further augmented by the launching of the 8,200 ton steamer *Kenuta*. She and her sistership *Flamenco*—still to take the water—are being built by the Greenock Dockyard Co. Ltd. Both ships, which bear traditional P.S.N. names, will measure 476 ft. B.P. × 66 ft. mld. breadth × 40 ft. 8 in. depth to upper deck and be driven by Parsons type turbines of 9,400 s.h.p. Their hulls, unlike the previous group of P.S.N. ships, will be of three-island type and have three complete decks. They will be capable of carrying a total of 10,925 tons d.w. as well as having accommodation for the usual 12 passengers.

The last ships to bear these names were flush deckers of some 5,000 tons gross and about 400 ft. in length. Built in 1906 the *Flamenco* was sunk 10 years later by a German raider. The *Kenuta* had a much longer career, both under P.S.N. and Greek flags.

* * *

The Ulster Steamship Co. Ltd. of Belfast, owners of the Head and Lord lines have sold their two sisterships *Lord Glentoran* and *Lord O'Neill*. In replacement Harland & Wolffs are to build them a 16 knot turbine driven cargo liner of 9,000 tons d.w.c., similar to the *Ramore Head*, completed at the same yard two years ago.

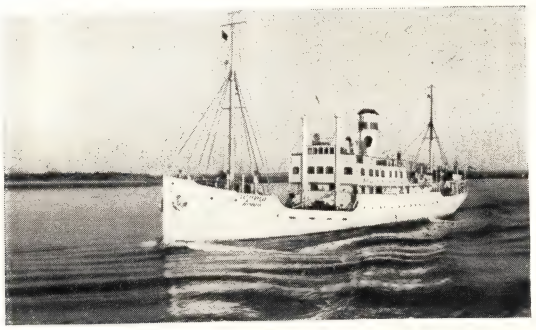
The *Lord Glentoran*, 5,667 tons and the *Lord O'Neill* 5,688 tons, were originally the Glasgow owned

Daldorch and *Dalhanna* and were built at Dalmuir by Beardmores for John M. Campbell & Son. They were handsome looking ships of three island, single deck type and always appeared to be particularly well kept.

In 1941 they were bought by the Henderson Line, but not renamed, the firm apparently regarding them merely as temporary stop-gaps until the advent of new tonnage. After four years' service under their houseflag the two ships were sold to Heyns, who with them revived the once well-known *Lord* series of names and which had latterly became extinct.

Now the *Lord Glentoran* has gone to Yugoslav owners, while the *Lord O'Neill* has become the property of the Emden firm of Schulte & Bruns, who will doubtless use her in their ore trade.

* * *



" *Sestroretsk* "

SESTRORETSK

As the result of police interest in one of her passengers the 1,615 ton Russian S.S. *Sestroretsk* recently became front page news in the daily papers.

Thirty-eight years' old and 240 ft. long, she is a handsome little ship and in her white paint always looks very smart and well kept.

For some years she and the *Beloostrov* have been running on the passenger and cargo service between Leningrad and London, berthing at this end in the Surrey Commercial Docks. Both are examples of the many former Finnish ships which were taken over by Russia after the war.

The *Sestroretsk* was built, and for many years owned at Stettin. Both as the *Prinzessin Sophie Charlotte*—her original name and as the *Preussen* she was kept on the Local Baltic Sea packet services for which she was designed, latterly running between Stettin and Leningrad. In 1933 she was bought by the Finland Line from Mr. R. C. Gribel and became the *Polaris* after which she ventured farther afield to North Sea ports, and became known in this country. Her consort *Beloostrov* is another former Finland Line ship and was far more widely known under her previous name of *Aarlotar*.

* * *

CLAN LINE COLOUR CHANGES

The Clan Line has decided that the ships of their associated firms the British & South American Steam Navigation Co. Ltd. (Houston Line) and the Scottish Shire Line shall once again revert to the practice of carrying Clan Line funnel markings. The Houston Line funnel has been red with two black rings, and a black top and that of the latter company yellow. Since they became associated with the Clan Line there have been many changes in the funnel painting of these two concerns. At one time the Houston Liners were given a funnel design the top half of which was black and the lower half red, with two black rings. In the middle of the black above were the Clan Line's two red bands. A similar arrangement was adopted for the Scottish Shire Liners, save that the bases of their funnels were yellow.

Then both fleets were painted in normal Clan Line colours, but last year they reverted to their original pre-amalgamation colour schemes.

During the last year or so the Clan Line has been experimenting to see if the addition of one or two white lines, one at the top of the hull and one at the waterline, would give a smarter appearance. The waterline, one was naturally unpopular with their chief officers and the idea was abandoned in favour of painting the islands and top strakes white. In addition the stems of their ships now sport a Scottish lion painted red on a white ground. To complete the effect every " Clan " ship is to be issued with a tartan flag—that of the Clan after which the vessel is named and it is to be flown in port at the forward jack staff. The houseflag of course will still be flown from the mainmast as usual.

* * *

Many readers will remember with affection the " pocket " passenger liner *Perth*, later flagship of the Dundee, Perth & London Shipping Co. Ltd. Completed in 1915 this ship saw strenuous service in both wars, but in between traded regularly between London and Dundee, and was one of the last East Coast ships to carry passengers in any numbers.

In 1946 she was sold to the Falkland Islands Co. Ltd., and during the next two years made two round voyages between London and her new home port down south. Although under her new name of *Lafonia* she was painted exactly as she had been in her former D. P. & L. days, her appearance was slightly altered by the substitution of two pairs of king posts for her four hydraulic cranes.

Late in 1948 she was put on the sale list and had a long wait in London's Surrey Commercial Docks awaiting a purchaser. Now she is in service again, but in the Mediterranean, as the Italian owned *Valfiorita*, the property of the Lloyd Mediterraneo.

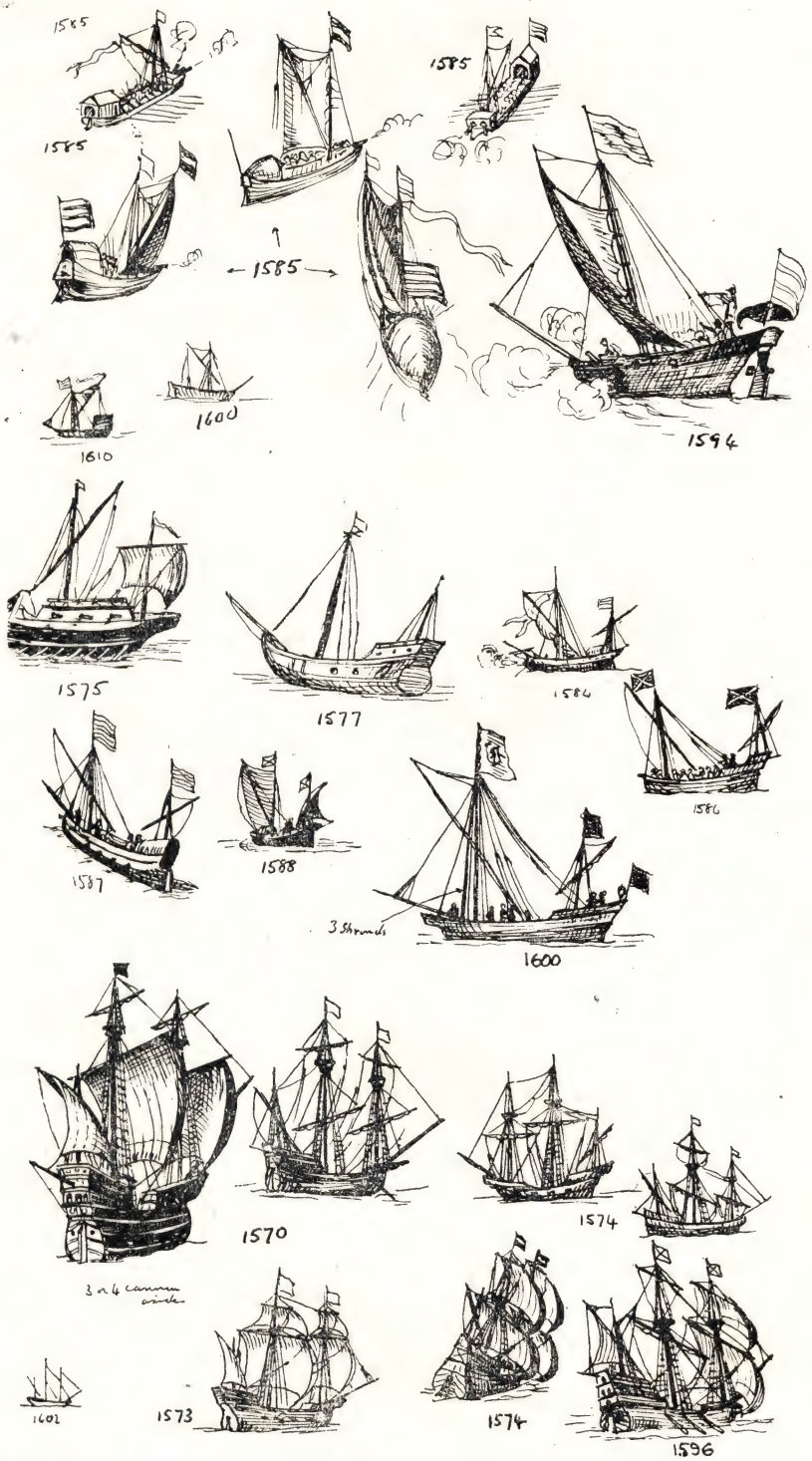
She has accommodation for 95 first and 22 second class passengers, and is reported to be still good for 12½ knots.

Having acquired so many new ships since the war it was only to be expected that Portugal's premier shipping concern the Companhia Nacionale de Nav. of Lisbon should have a thorough weed-out of its older ships.

During August four veterans were reported sold, all going to British shipbreakers. Two of those named are passenger liners. The newer one, the Cockerill

(*Continued on page* 173)

OLD TIME SHIPS



SOME time ago, Mr. Robert Hayne of Osmington, near Weymouth, lent us from his library an old book entitled *Les Guerres de Nassau* by Guillaume Baudart de Deinse en Flandre, which was published in Amsterdam about 1616. The book contained a large number of line drawings and quite a number of seafights were illustrated. The whole of the drawings gave evidence of careful and accurate draughtsmanship, and as they were made about the end of the 16th century, we felt that they should contain some valuable contemporary information about the ships of the period. To facilitate study and comparison, we made sketches of the ships with one mast, then those with two masts, and then those with three. We reproduce herewith a few of the sketches,

The ships with one mast seemed to be operating only on the rivers and in narrow waters. The only type using oars appears to be a rather large vessel used for transporting troops. This carried two guns pointing forward, presumably for preparing the way for the landing of the troops in an offensive action. The spritsail was used exclusively in all the one masted ships.

One of the ships with two masts carries a square sail on the foremast. This mast is the smaller of the two, whereas all the other two masted ships had the main mast forward as in the ketch rig. The ship dated 1588 shows a curious combination of a spritsail on the main mast and a lateen on the mizzen. All the other two-masted ships appear to have lateen sails on both masts. The three-masted ships follow the general

(*Continued on page* 173)

A Model of an EARLY XVI CENTURY SPANISH CARRACK

by

A. E. Field

Mem. Soc. Naut. Res.

Crown Copyright, from an exhibit in the Science Museum, S. Kensington
Model of "Santa Maria"

Choice of Subject.—In deciding on the model you are to make I strongly advise choosing a named ship and obtaining the plans or drawings and carrying out any necessary research before commencing the actual model. A correctly made scale model of a "named" ship is of far greater educational and historical value than an unnamed ship.

While this savours very much of "do as I say, but not as I do," I must confess I had no intention of publicly exhibiting the Carrack at the time I started to make it. Actually when work was commenced in 1937, it was intended as a sideboard ornament. In view of criticism as to the considerable time that would elapse before it could possibly grace the sideboard, the hull was put away in a box and forgotten till late 1946, a simple and quickly made model of the *Golden Hind* being made to satisfy domestic requirements.

I mention the reason for commencing the Carrack as this explains "choice of subject" and scale, which, in my case was 1 : 60.

Choosing the Scale.—Thought should be given to the scale before commencing a model. The purpose for which the model is required or your own particular "flair" will help you to decide. Most ship model makers' plans are to the scale of $\frac{1}{8}$ in. to 1 ft. (1 : 96). Considerable detail is possible and models of clippers, brigs, coasting steamers, etc., to this scale are not too large to be accommodated in the modern semi-detached house. A clipper of about 200 ft. between perpendiculars would at $\frac{1}{8}$ in. to 1 ft. approximate 3 ft. from tip of bowsprit to taffrail. A model of the *Queen Mary* at the same scale would, however, be over 10 ft. long! Most museum and builders' models are $\frac{1}{4}$ in. to 1 ft. (1 : 48). The larger the scale the more the detail work that can be included, although the amount of detail shown on some miniatures has to be seen to be believed.

Generally speaking however, a fully detailed model to $\frac{1}{8}$ in. to 1 ft. scale will take considerably longer to make than a 1/32 in. to 1 ft. model of the same ship.

If your plans are to a different scale to that chosen for the model they can be modified very simply by using a conversion scale as described on p. 107 of *Ship Modelling Hints and Tips*, by Lt. Comdr. J. H. Craine and published by Percival Marshall & Co. Ltd. I strongly recommend this little book which is packed with valuable hints and tips both for the beginner and the experienced ship model-maker.

To revert to the Carrack, the plans consisted of a set of "lines"—a drawing giving the various shapes of the hull at different sections and waterlines—of the *Santa Maria* which were obtained from the Science Museum, South Kensington, price 6d. These lines were to a scale of 1 : 48 and were too large for my purpose. As I was not, at that time, familiar with the "conversion scale," I adopted the draught reduced to 1 : 60 by a photographic process.

It should be mentioned here that the model of Columbus's *Santa Maria* in the Science Museum was constructed under the supervision of the Director of

the Naval Museum in Madrid, and presented by the Spanish Government.

The very considerable additions to our knowledge of the form and structure of early ships, as a result of the research of the last 50 years, has made it possible to detect numerous anachronisms in this model which was designed prior to 1892. No contemporary drawings or data of Columbus's famous ship, beyond brief references in his diary, have ever been found, therefore any model of the *Santa Maria* can only represent a typical ship of the locality and period.

There is no reason to suppose that the square transom stern was invented when Columbus sailed in 1492. Other alterations from the Science Museum model such as—shape of the ship's boat, provision of windows in the stern, panelled top, rails at the break of the fo'c's'le, half deck and poop and a very much more sober scheme of decoration—have been made in my model which is considered to be a good representation of an early XVI Century Spanish Carrack.

Building the hull.—As I desired to have a hull in which the planking was clearly discernible it was decided that the best way to achieve this and at the same time obtain perfection in shape was to build it with separate planks on " frames." As the hull was not to be left open (as in the wonderful contemporary Navy Board models), there was no purpose in building up double frames, futtock by futtock, or in having as many frames as would be built into the actual ship. A tracing was made of each cross section shown on the drawing and this was transferred to some $\frac{3}{16}$ in. timber. Only one half of each section is shown on the draught of a ship as both port and starboard sides are the same at each section. I therefore drew a centre line down the middle of each piece of wood to be used for a frame and after carefully locating the tracing against this line I traced the section through on to the wood. The tracing was then turned over, located accurately against the centre line and the other side traced on to the wood. In this way I obtained the outline of the complete frame and was sure that both port and starboard sides were identical.

The frames were cut out in one piece as shown in the sketch (see Fig. 1). The slot in the bottom of each frame formed a " half-joint " with the corresponding slot in the keel, the outline of which had previously been traced direct from the sheet plan and transferred to a suitable piece of sycamore. The keel and the frames were cut away as necessary below the hatchway.

The actual cutting of the frames and keel piece was easily carried out with that most universal and invaluable tool that should be in every ship modeller's tool kit—the fretsaw. I have tried the treadle type, power driven type and the humble hand fretsaw and for accurate work prefer the latter. My hand fretsaw is very humble—I purchased it over 30 years ago and it was secondhand then !

A word of warning to those using this method of hull construction—do not attempt to use a frame that has been cut undersize, but make another.

Any pronounced irregularity in the shape of a frame was corrected at this stage by trimming with a

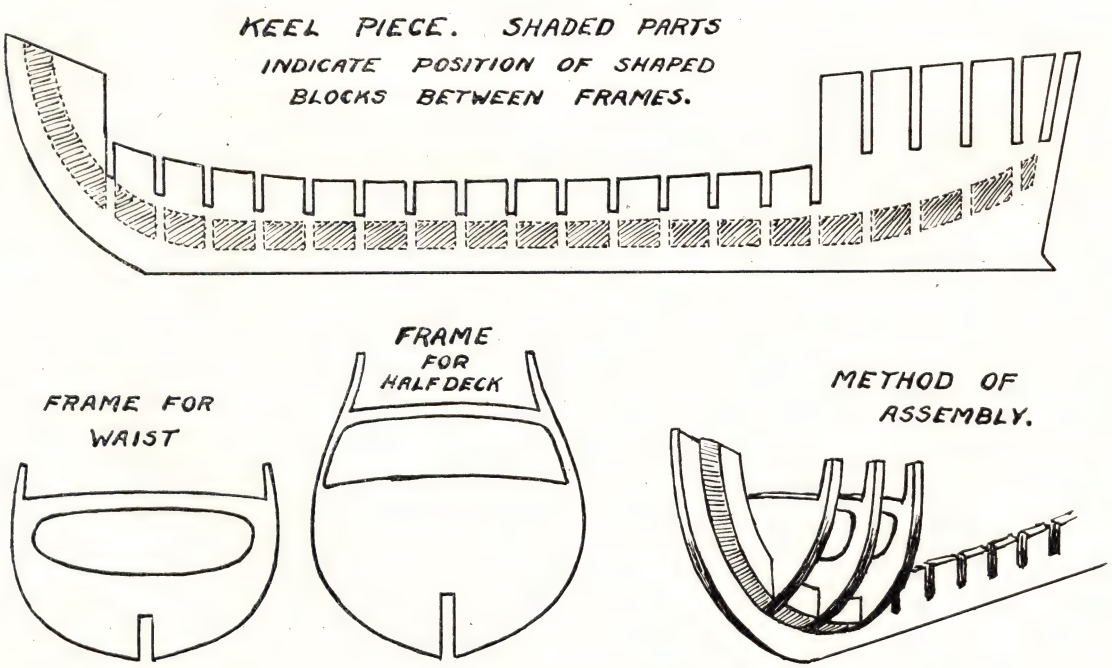

KEEL PIECE. SHADED PARTS INDICATE POSITION OF SHAPED BLOCKS BETWEEN FRAMES.
FRAME FOR WAIST
FRAME FOR HALF DECK
METHOD OF ASSEMBLY.

Fig. 1.

file but the bevelling or " fairing " was left till later. Small blocks of soft wood were now made, taking care to make these a perfect fit between the frames to avoid straining the subsequent structure out of line. These blocks were shaped at the bottom to correspond with the " rise of floor " of the adjacent frames and thus formed a landing for the garboard strakes (or planks nearest the keel). Suitably shaped blocks were also made for the port and starboard sides of the bow to enable the actual hull planking to be securely fixed. The frames were now glued in their respective slots in the keel piece and the shaped blocks glued between them. The lower part of the keel piece was clamped between two straight pieces of hardwood to ensure correct alignment and the assembly put away for a few days until thoroughly set.

The edges of the frames were now carefully bevelled or " faired " with file and sandpaper block to enable the planks of the hull to be bedded down evenly. A narrow strip of $\frac{1}{16}$-in. sycamore bent around the frames at various places following the same direction as the planking enabled me to determine when the trimming or fairing process had been carried far enough.

The next step was to prepare the " planking " and for this purpose $\frac{1}{16}$-in. sycamore was used. Prior to the war various thicknesses of sycamore and many other hardwoods of excellent quality, precision planed on both sides, was readily obtainable from Hobbies Ltd., and I trust the time is not too far distant when such excellent model making material is again readily obtainable. In my opinion soft wood generally, and the very soft woods such as balsa, are entirely unsuited for ship models of exhibition standard.

The planks below the lower wale had to be carefully shaped, being similar to a very elongated banana. For those building a similar type of hull an excellent method of determining the approximate shape of these lower planks is to measure with a piece of paper the distance round the edge of various frames from the keel to the position of the underside of the lower wale. To take about five frames, spaced equally between bow and stern, will be sufficient for this purpose. Having determined the maximum width of the planking you propose to use and bearing in mind that hull planking was seldom more than 12 in. wide, ascertain how many planks to scale will be required to fill in this space around the midship frame. In other words, if the distance round the midship frame from keel to underside of lower wale measures $2\frac{7}{8}$ in. and it is proposed to use $\frac{3}{16}$ in. planks then 14 planks $\frac{3}{16}$ in. wide and a garboard strake of $\frac{1}{4}$ in. wide will be required to fill this space at this frame. It will now be sufficient if the distances measured round the other four frames are divided by 15 but allowing the garboard strake to be a little wider than the other planks. In this way it is possible to determine the amount of taper fore and aft on each plank and to ascertain whether any " stealers " will be required. I found it necessary to insert one or two in view of the " fullness " of the hull amidships. Cut the planks slightly oversize in thickness and length and trim down the edges carefully to ensure a good fit against the keel in view of the absence of a rabbet and to obtain a reasonable joint between each plank. Do not attempt to make too perfect a fit between each plank, however, as if the hull is painted and rubbed down between coats the planking will not be discernible when finished.

Ships in the News (*Continued from page* 169)

built *Nova Lisboa*, 7,745 tons, dates back to 1912 when as the *Albertville* she was built for the Belgian Congo Line. After some ten years with them she was bought by her late owners—then a newly formed concern—and became the *Angola*, bearing this name for over 20 years, relinquishing it finally to a newer ship.

The other passenger ship is the 6,355 ton *Lourenco Marques*, seized at Delagoa Bay during the first world war as the German East African Liner *Admiral*. A real old timer it is 45 years since she was built by Blohm & Voss. The remaining two ships disposed of are also ex-enemy prizes of the same war, the *Cubango* 5,820 tons, built in 1903 as the *Lichtenfels* and the slightly younger *Congo* of 3,091 tons.

LISA

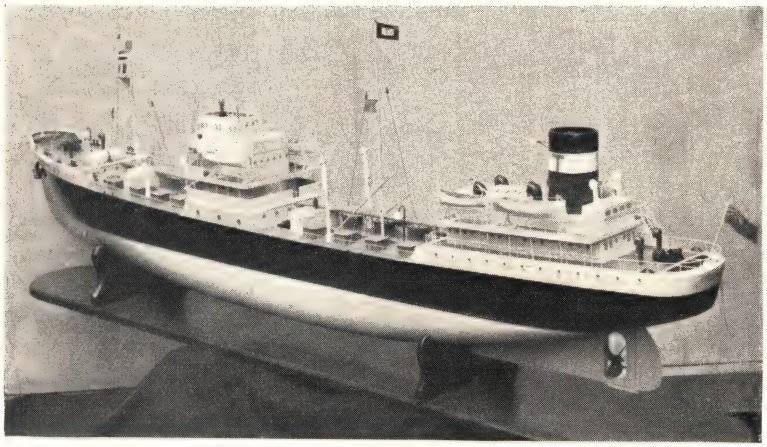
The 151 year old Swedish auxiliary schooner *Lisa*, one of the oldest ships afloat is to be broken up.

She was built of oak at Troense in 1799 as the *Helene* for the Danish Navy and made many North Atlantic voyages before degenerating into the African-South American slave trade, but little is known of her early history. She was rebuilt in 1872 and in 1917 and after 125 years under sail alone was fitted with an auxiliary motor of 25 h.p. Latterly she has been rigged as a bald-headed schooner.

A trim ship she has a gross tonnage of only 75, her cargo capacity being 130 tons. Her overall length is 19.09 metres, her beam 6.3 metres and draught 3.3 metres.

OLD TIME SHIPS (*Continued from page* 170)

form of those in contemporary paintings, although in some cases the lead of the braces seems to be more vertical than usual. Three of the drawings show the main topsail braces leading to the main top, which seems a curious arrangement, and not a very effective one with regard to the control of the yard.



OUR READERS' MODELS No. 4

by S. T. Grant

Master Mariner

THIS model was the outcome of a sectional drawing which appeared during the war years in the book *Britain's Glorious Merchant Navy*.

Having started on a hull some few years before, this was brought out and I decided that I would make a tanker. I had quite a lot of numbers of *The Motor Ship* and thus was not lost for general details. Having served my time at sea prior to the 1914 war and having the sea in my bones, naturally ships came easier for me to model compared with the laddie whose only guide is a plan.

The hull was constructed of pine, bread-and-butter fashion ; the planks were cut to shape, dowelled together, and the outside shaped up. The planks were then carefully parted, centres taken out and the lot glued and well and truly clamped together. The hull is 4 ft. 10 in. × 6¼ in. × 5 in. ; the decking has $\frac{1}{16}$ in. aero plywood which cleaned up beautifully.

The superstructure was built up of obechi and plywood, being light, yet strong and easy to work. The power unit consists of a beautiful, large clockwork marine unit which I purchased at the " M.E." Exhibition some 20 years ago. I only wish one could obtain them now, absolutely perfect for the job and so easy to install. The propeller is 1¾ in. three-bladed. You will appreciate as I was not working to drawings things were fitted as I went along. Before decking I thought I had better try out for trim, as apart from a $\frac{3}{16}$ in. brass keel outside, all ballast is inside. By casting a number of pegs of lead of pear shape, I was able to place them where I wanted them and so got my trim in the bath absolutely spot on and at the same time I was able to mark in my true waterline.

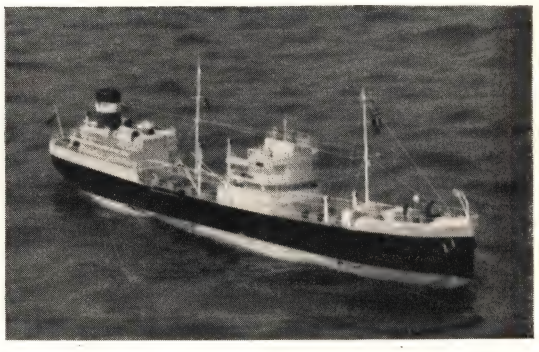
As it had to be a working model I had to simplify a lot of detail, but I have left sufficient to give realism afloat, as will be observed from the photograph.

Rails were made of split pine and piano wire. This makes a strong yet effective rail. Masts are of brass tubing of various sizes sweated up together. This looks so much neater than wood. All the deck fittings were made up of odds and bobs—great joy turning out engine room telegraph, standard compass, etc., out of the junk box.

The boats were carved from obechi and fitted up and look very lifelike. The funnel was made up from dural tubing flattened to an oval section, and bands and cap fitted from plywood. The whole, when painted, looked quite real.

I had arranged that the winding key should come near one of the pump houses. This conceals the opening very well and yet makes it easy to wind up without disturbing any deck gear.

She was finished off with plastic stopping, well rubbed down with wet and dry abrasive paper ; this leaves a wonderful surface. I found I could get a beautiful finish by using " Belco " cellulose paint. This stands up well to water.



Captain Grant's model tanker in its elements

I only wish I could get to Victoria Park. Looking at the cover of the April issue of MODEL SHIPS AND POWER BOATS makes me really wish I could see some of the grand models depicted there.

I am now working upon a third trawler which will be easier to carry about. The tanker is a bit of a problem for transit.

FOR THE BOOKSHELF

BRITISH FISHING BOATS & COASTAL CRAFT

Part 1, Historical Survey

H.M. Stationery Office, London, 2s. net. 54 *pages*

This is one of the standard publications of the Science Museum, South Kensington, being the first part of the new catalogue of the section dealing with the smaller craft. Part 2 will be a descriptive catalogue of the models and records to be found in the museum. Part 1 is a comprehensive and historical survey of the various types of fishing boats to be found around our coasts and includes also those of Scotland and Ireland. Fishing boats and coastal craft form a very important part of our sea-story and are worth much more serious study than is usually given to them. In this the ship modeller will find a wealth of material on which to base his work. Moreover, models of these smaller craft can often be built exactly as the prototype without covering up the interesting constructional details, and are thus worthy of the attention of the most expert craftsman. The development of the various present-day types is traced from their remote ancestors and the effect of foreign influence is fully shown. The museum contains a wide range of accurate models of these small craft, some contemporary and many made by men who worked in them and knew them intimately, and this book records the conclusions which may be drawn from these models. The illustrations, thirty-six in number, are carefully chosen and well-reproduced and with the map which forms the frontispiece add considerably to the value of the book. This book will widen our knowledge of and stimulate our interest in the smaller craft, and every shipmodeller will be well advised to have a copy at hand for reference purposes. As is usually the case with the Science Museum publications, it is wonderful value for the price charged for it.

HAND TOOLS FOR WOOD AND METAL WORK

By R. Harries

Published by G. Bell & Sons, York House, Portugal Street, London, W.C.2. Price 5s. net.

Shipmodellers, especially those who work in wood, are often inclined to be somewhat casual about their tools. We all know the old sailor-type who carves out his hulls with a jack-knife and many of us seem to emulate him, especially in our apprenticeship days. As we progress, however, we find that the quality of our work is improved and both time and money is saved by using the proper tools for each particular job. This books puts the whole range of tools before us and will be found extremely useful for the shipmodeller whether he works in wood or in metal. Every tool is clearly illustrated and its use and maintenance fully described. The scope of the book includes marking out and measuring tools, files and filing, drills and drilling, screw cutting by hand, soft soldering, woodworking tools of all kinds, and very useful section on materials both wood and metal. At its moderate price the book will be a valuable addition to any shipmodeller's library.

The National Maritime Museum

The collection of ship photographs in the National Maritime Museum has been greatly accelerated these last two years by the work of the Photographic Records Sub-Committee of the Society for Nautical Research. Literally thousands of photographs have been sent in, sometimes in batches of a dozen or so and sometimes in the form of an entire collection. Negatives have also been loaned and the photographic staff of the Museum has made prints. In many cases the prints will form a more permanent record than the negatives themselves as they are more easily preserved from damage. Especially does this apply to glass negatives. A large number of old faded prints have been handed in and these have been copied with, in some cases, astonishing results. By the use of screens and other means details not obvious in the faded photograph have been brought out in the new print, and present day prints, if of good quality, will last for a very long time.

An exhibition of some of these photographs is being held at the present time in the Print Room of the National Maritime Museum. The prints shown date from the earliest days of photography to modern times and thus include sailing ships of all sizes from the early days to the five-masters of the twenties. A great number of the photographs are of fishing boats and coastal craft of many types, and a number of very interesting groups and deck views are shown. Naval vessels, especially those of the mid-nineteenth century are well illustrated. Altogether the exhibition is one which will appeal to all lovers of ships and the sea, and ship modellers will find in it a wealth of interest. Many people seem to consider the National Maritime Museum as being rather out of reach, but if they will get one of the half-hourly trains from Charing Cross, Waterloo or London Bridge, they will find it quite easy of access. The Exhibition is open during the usual hours of the Museum and will remain on view until the end of November. After that date it is hoped to show it at various centres throughout the country.

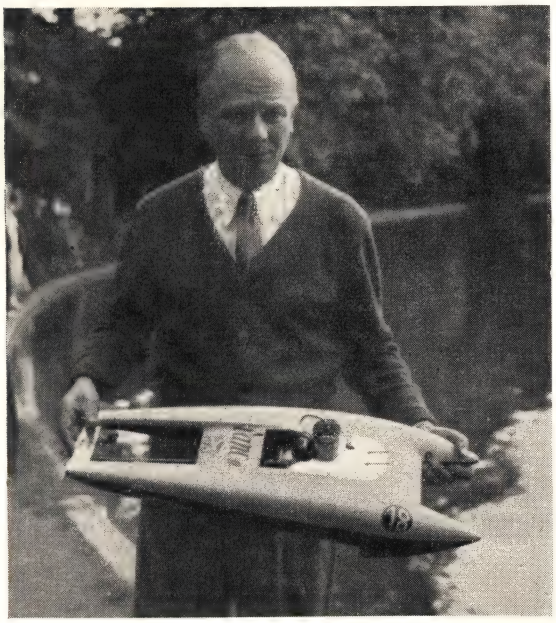
News from the Clubs

Y.M. 6M SERPENTINE CUP (OPEN)

Racing for this cup was held on 17th September in conditions bordering on a gale. Out of a possible score of 45, R. Jurd's *Estella* (Gosport) gained 41 pts., 2nd N. D. Hatfield's *Fantasy*, 36 pts. and 3rd W. J. Daniels's *Esther* (S.L.M.Y.C.) 26 pts.

M.Y.A. BRITISH (OPEN) M CLASS CHAMPIONSHIP, HOVE

In this event 25 yachts were entered from 15 clubs, and sailing was extremely keen in the very strong winds that prevailed. Six of the M's sank or had damage which made it necessary for them to retire. The following results are out of a possible score of 90 pts. : 1st P. H. Fellingham's *Elusive* (Hove & Brighton, skippered by T. Lance) 86 pts. ; 2nd R. Redhead's *Babbie* (M.Y.S.A.) 70 pts. ; 3rd M. Holt's *Senlac II* (Guildford) 65½ pts.



M. Devauze with his hydroplane " Vano " at the Paris Regatta

THE PARIS INTERNATIONAL REGATTA, 1950

Three members of British clubs, representing the British M.P.B.A., competed in the Paris International Regatta held on September 10th. They were George Stone of the Kingsmere Club, whose *Lady Babs* and *Lady Cynthia* are two of the fastest 10 c.c. boats, George Lines, of the Orpington club, whose *Sparky* is the fastest 15 c.c. boat, and Kenneth Williams, of the Bournville club with *Faro*, the fastest in the 30 c.c. class. On the day of the regatta racing commenced at 11 a.m. with the 10 c.c. class, in which many boats failed to complete the 500 metres. The winner was Jean Louis Chevrot with *Folbrise VI* at 66.17 m.p.h., 2nd P. Chevrot with *Bebop II*, 61.14 m.p.h. and 3rd R. Jonet, with *Eole* 10, at 59.21 m.p.h. In the 30 c.c. class only one French boat was able to compete, M. Suzor's *Nickie* 8 which came second with 49.34 m.p.h., the winner being Kenneth Williams's *Faro* at 59.21 m.p.h.

THE THAMES SHIPLOVERS AND SHIP MODEL SOCIETY

At the meeting of this society on November 9th, Mr. A. Tucker, will discuss some of the draughts of ships to be found at the National Maritime Museum, Greenwich ; and on November 30th, an account of the development and present work of Lloyd's will be given by Mr. D. King-Page. These meetings will be held on board the *Discovery*, and will be at 6.45 p.m.

THE NORTH LONDON SOCIETY OF MODEL ENGINEERS

The 5th annual exhibition held by this society included a very nicely-made steam driven destroyer H.12 by S. Mercer, and also several waterline models of polar exploration ships by M. E. Moon which had been previously exhibited at the " M.E." Exhibition. Racing hydroplanes included H. V. Tankard's 1 metre class fitted with a 15 c.c. o.h.v. engine, and A. F. Weaver's *Wizard of Oz*, which has put up a speed of over 32 m.p.h. Flash steam was represented by Cockman's *Ifit VII* which has done 52.5 m.p.h. The only sailing yacht of note was that by A. Edwards of a Star Class sharpie.

SALISBURY & DISTRICT MODEL ENGINEERING SOCIETY

Welcome news to members interested in model boat building is that a sailing water has at last been obtained. It is hoped that this facility will encourage model boat-building and attract new members to the Society so that a Marine Craft Section can be formed. Further details can be obtained from the Hon. Sec., R. A. READ, 7, De Vaux Place, Salisbury.

BOURNVILLE MODEL YACHT & POWER BOAT CLUB

At a recent regatta model yachts of the 6m. class sailed three intensive rounds for the Dr. Sanderson Silver Yacht Trophy. Racing began in almost a calm, freshening to a stiff N.E. breeze, until by the third round, strong winds reaching directly across the lake provided extremely competitive sailing, resulting in J. Lewis's *Heather* winning with 55 pts., with A. Davis's *Dare*, 46 pts. and third, G. Leed's *Ethel* with 40 pts.

THE BIRMINGHAM MODEL YACHT CLUB

Racing for the " Ship's Bell " was held recently in which 6 " A " class boats were entered. D. Lippett's *Jenny Wren* was 1st, E. Hague's *White Foam*, 2nd, and 3rd K. Law's *Sonja*. An interesting point about this new trophy is that the metal from which it was cast is from the veteran.

NORTH OXFORDSHIRE MODEL SHIP CLUB

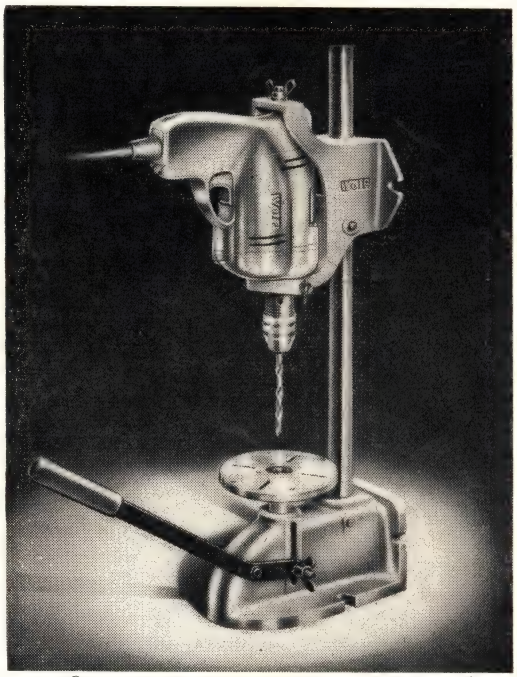
This is a provisional title for a club which it is hoped will be formed in Oxfordshire for model ship enthusiasts, whether period ship modellers, model yachtsman, sailing ship enthusiasts, or anyone interested in power-driven craft or radio control of boats. An ideal site for constructing a pond suitable for powered and sail models is being cleared, and accommodation is available as a club house. Any interested readers should write to Ernest T. Mant, of The Mill House, Wigginton, Nr. Banbury, Oxon., for further particulars of his project.

TRADE TOPICS

DURING the recent " M.E." Exhibition we were privileged to see a demonstration of the Wolf Cub electric drill. We were very much impressed with it and consider that with its various attachments and accessories it is one of the most useful tools for the shipmodeller we have ever seen.

Essentially it is a portable electric drill with pistol grip and trigger control. Fitted with a flexible sanding disc or a polishing mop it will save hours of tedious work in rubbing down a hull or polishing it after spraying. Our illustration shows it arranged as a bench drill. In this case it is bolted to a bench clamp which grips the rod forming the pillar, the rod being supported in a base bolted to the bench. This set-up enables one to drill the smallest holes without the risk of breaking the drills. If the pillar is lifted out of the base the clamp which holds the unit can be bolted direct to the bench, in which position the spindle is horizontal and the pillar becomes the lathe bed. With a tool rest clipped on to the rod anything held in the chuck can be turned with ease. A faceplate can also be fitted and work of up to $4\frac{1}{2}$ in. diameter turned on it. For turning between centres a tailstock can be clamped to the rod when work up to 9 in. long can be turned. For turning the masts and spars of larger models a longer rod can be supplied enabling work up to 18 in. long to be turned. Fittings can be supplied to transform the unit into a very efficient saw bench. In a friend's workshop which I visited recently I found him using his Wolf Cub for driving his Super Adept lathe. The motor supplied ample power. We would strongly recommend any ship modeller to send for particulars and to investigate the possibilities of this most useful machine. The address is Wolf Electric Tools Ltd., Pioneer Works, Hanger Lane, London, W.5.

We have received from Messrs. Bassett-Lowke Ltd. of Northampton, a copy of their latest list of ship models and fittings. To quote from the introduction " we apologise to our friends for the meagre selection in model ships and fittings that we are able to offer, but we assure them that this is only a forerunner of the much more comprehensive list that we hope to present in the near future." On examination of the list, however, we find that there is quite a comprehensive range of fittings and parts for both model ships and model yachts. All kinds of power plants are available including clockwork, and electric motors, oscillating and slide valve marine steam engines and diesel engines. The new horizontal type electric motor should have a very wide appeal among builders of prototype models. Various types of boilers are listed including a twin drum and also a centre flue type complete with blowlamp. The model ships fittings include bollards fairleads, davits, ventilators, hatches, skylights, anchors, chain cable, gratings, stanchions, propellors, and many other items. We were also pleased to see the range of blocks and deadeyes. These are made of plastic material and are supplied in white for tiny bone models and brown for larger models. The model yachtsman will find his needs amply catered for, the only deficiency being that sailcloth is not yet available. A comprehensive range of plans of ships, both new and old, and sail and power, is included in the list. At the modest price of 1s. this list will be a valuable help in the ship modeller's workshop. These fittings and models can be seen also at the London and Manchester branches and will repay investigation.



The Wolf Cub

News from the Clubs (*Continued*)

CLYDE SHIP-LOVERS & MODEL MAKERS' SOCIETY

We have received the syllabus for the 1950-1951 session of this society, which includes a number of very interesting lectures, exhibitions and films. The item for November is a talk on " Merchant Ships and Personnel " by Capt. Alex. MacDonald (late supt. School of Navigation, Glasgow). Hon Sec.: CHARLES MCCREASY, 135, Earl Street, Glasgow, W.4.

EASTBOURNE MODEL POWER BOAT CLUB

This club was formed at the beginning of this year, and has as its workshop, a garage fitted with 12 ft. of benching and two carpenters' vices. The members have built their models up from kits, which have proved quite successful, one model having made about 10 knots.

Hon. Sec.: F. BRIDGES, 8, Artisans Dwellings, South Street, Eastbourne.

Editor's Correspondence

DESIGNS AND MATERIALS

DEAR SIR :

Referring to advertisements in *The Model Engineer*, of which I have been a regular reader for many years, I shall be glad if you can help me :—

(1) Can you send me a list of model yacht designs which would meet the following approximate specification : Length 24 in.-30 in., Bermuda rig, automatic steering.

(2) Source of supply of materials. In this connection I have tried to obtain a copy of MODEL SHIPS AND POWER BOATS.

(3) What size and pitch of propeller would you recommend for a model power boat 40 in. long, 6 in. beam, driven by a Mills 1.3 c.c. diesel engine.

(4) Source of supply of (3) above.

It may be that the last two queries should more properly have been addressed to MODEL SHIPS AND POWER BOATS, but in view of my long acquaintance with *The Model Engineer* I feel I may trespass on your time to pass them over.

Yours truly,

Northumberland. A. E. POWELL.

In reply to your letter and taking your queries as they come :—

(1) *The designs included in our list are the standard sizes recognised by the Model Yachting Association for racing. You will notice that the smallest is 36 in. and we agree with them that anything smaller is not really fast enough for serious racing. However, in our book list you will find a book by Daniels and Tucker entitled "Build Yourself a Model Yacht." This includes full instructions and full-size working drawings for building a 30-in. Sharpie and a 36-in. bread-and-butter yacht. Both are Bermuda rigged, and you might find the 30-in. model, which is very easy to build, suitable for your purpose.*

(2) *Materials are usually rather difficult to obtain. You might, however, find the materials for building the Sharpie in your local aero-modelling shop. The planks for building a bread-and-butter model might be obtained from the local timber merchant, although the yellow pine and similar woods available before the war are now in very short supply. As an alternative, we could recommend the kit by Lance and Mullett which is advertised in our current issue. I have built this model myself from the kit and can thoroughly recommend it.*

(3) *It is almost impossible to specify the size of propeller for a model as so much depends on the hull form and finish, and the power of the engine available. Most constructors make their own propellers by brazing or even soft soldering blades into a boss and twisting them to vary the pitch until they get satisfactory results.*

(4) *Bassett Lowke's or Bonds o' Euston Road supply cast brass propellers but you would be well advised in the first place to make a propeller as suggested until you find the diameter and pitch which best suits your boat.*

HYDROPLANE DEVELOPMENT

DEAR SIR :

I note from recent issues of MODEL SHIPS AND POWER BOATS that there is at present an increasing interest in hydroplane hull development.

The article in the June number on Mr. Walton's "D" class hydroplane shows what can be done to improve performance by consistent development and I wish to congratulate Mr. Walton on attaining a speed of 51.5 m.p.h. using an engine of only 3.5 c.c. capacity. I am sure readers would appreciate fuller details of this boat, with a drawing if possible.

I am particularly interested in this small class as I am at present experimenting with model hydrogliders having engines of this capacity. Using an Amco 3.5 c.c. engine and pusher propeller I have so far attained 48 m.p.h. over the 500-yd. circular course, This speed was accurately timed by independent timers from the Glasgow S.M.E.

It appears from the photograph of Mr. Walton's boat that he is using an E.D. engine and as this develops about the same power (i.e., .25 h.p.) as my Amco it is interesting to compare the performances of water and air propellers. Although the latter are probably a little less efficient than water propellers, there is usually an advantage in a hydroglider's reduced weight. This is borne out by Mr. Walton's $2\frac{1}{4}$ lb. against my hydroglider's $1\frac{1}{4}$ lb.

Mr. H. A. Adams's article on experiments with model hydroplanes in the July number gives very useful data on the relative performance of various types of hulls. I do not agree, however, with his observations on "Catamarans," as I have found that a twin float hull is much faster and more stable in both rough and smooth water than a conventional stepless or stepped hydroplane. A twin float model will stay on the water at speeds far above those at which a conventional hydroplane would have back somersaulted, because of the very much reduced area forward.

It appears to me that the performance of full-size hydroplanes have not a great bearing on model design, as "top notch" models are relatively much faster than any full-sized hydroplane. In full-size practice the problem of back somersaulting has not yet seriously been met with. Many models develop thrusts equal to their weight but no full-size hydroplane approaches this.

I was interested in Mr. G. V. Hutchins' letter in the same issue concerning "Jetex" powered hydroplanes and I agree that two units are necessary to get a reasonable length of run. I could not use this in my experiments, however, as the thrusts would have been variable. I find it difficult to believe that

a speed of about 35 m.p.h. is possible with a hydroplane as heavy as 15 oz. with a thrust of only 4 oz. Is there not a considerable thrust augmentor effect with the two jet tubes which are shown in the photograph, so producing greater thrust ?

Yours faithfully,

Glasgow. D. C. JEFFREY.

A PADDLE STEAMER QUERY

DEAR SIR :

I am very interested in paddle steamers, and very much enjoyed the book you published on *Famous Paddle Steamers*. I wonder if any reader can tell me the fate of two very lovely boats that used to ply between Fleetwood and Barrow-in-Furness about 1914. The vessels were named the *Lady Moira* and *Lady Evelyn* and were operated by The Furness Rly. Co. in connection with excursions into The Lake District.

I remember, as a small boy, being taken on one of these trips and I was, at the time, very impressed with the steamers, and have often thought of them and wondered what happened to them. If any reader is interested and can enlighten me about them I shall be very pleased.

Yours faithfully,

Stalybridge. A. T. WAINWRIGHT.

WORKING MODEL SPRITSAIL BARGE

DEAR SIR :

I have just finished reading *Spritsail Barges* by E. W. Marsh, and would like to obtain plans to build a sailing model of the *Kathleen*. But your plans you offer are a bit smaller scale than I would like, therefore could you possibly inform me whether your scale would stand doubling, i.e. stepping up from $\frac{1}{4}$ in.-1 ft. to $\frac{1}{2}$ in.-1 ft. bringing the overall length from $20\frac{1}{2}$ in. approximate to 42 in. approximate ?

Yours faithfully,

Acton. F. J. KILNER.

It would be quite in order for you to step up the size of your model spritsail barge "Kathleen" from $\frac{1}{4}$ in. to $\frac{1}{2}$ in. scale. It is not usually possible to reduce the scale of a working model as the displacement is reduced in the cube ratio. Increasing the size—although it increases the displacement—is often an advantage as the extra displacement can be countered by using ballast, thus improving the sailing qualities of the model.

Notices

The Editor invites correspondence and original contributions on all subjects connected with model ships and power boats, which should be addressed to him at 23, Great Queen Street, London, W.C.2. Matter intended for publication should be clearly written, and should always bear the sender's name and address.

All correspondence relating to sales of the paper should be addressed to THE SALES MANAGER and correspondence relating to display advertisements to THE ADVERTISEMENT MANAGER.

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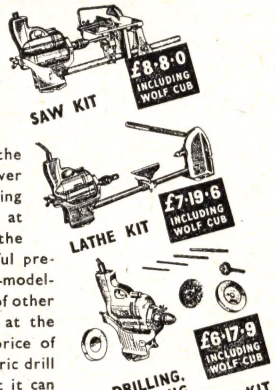

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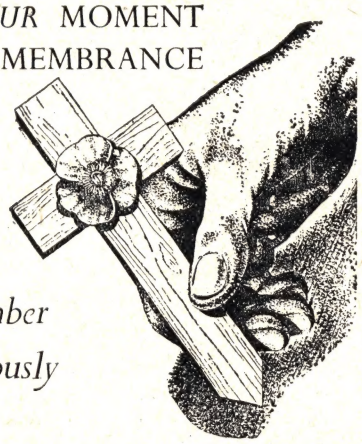

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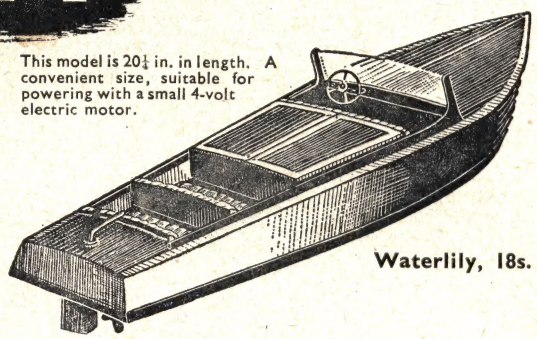

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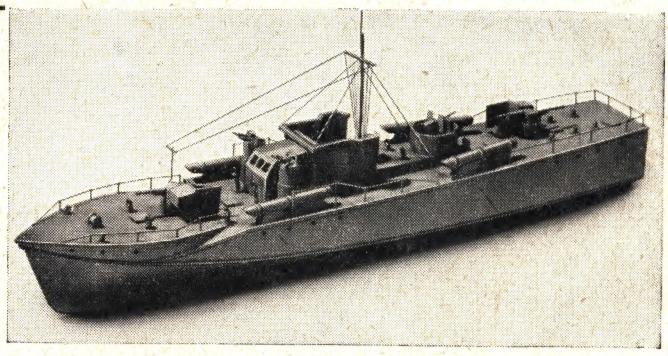

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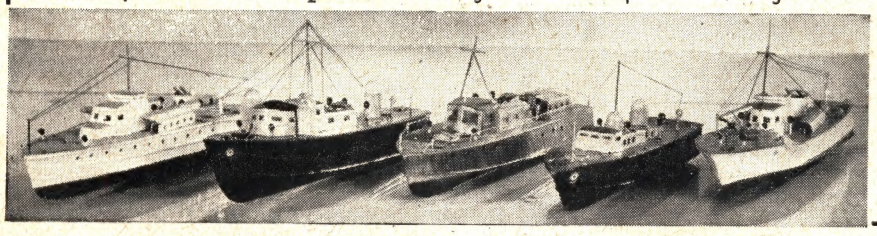

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